AGWA Support - AGWA - The Automated Geospatial Watershed Assessment Tool

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PRISM Posted by Schlosser - 2010/02/25 00:09
Can SWAT / AGWA accept PRISM data as the temperature and precipitation data, as a grid file?
Re: PRISM

Bill,

Posted by isburns - 2010/03/23 17:47

Neither SWAT nor AGWA can accept gridded PRISM data as temperature or precipitation inputs. AGWA runs SWAT on a daily time step so it needs daily precipitation and temperature data. Currently there are only two ways of inputting this into AGWA-as observed daily data or as generated daily data. The generated daily data uses statistical climate data, ideally based on at least a 20 year period of record, to generate daily data using a stochastic weather generator (Richardson, 1983). If you have the rest of the statistical data required to create the .WGN file, you could use the PRISM data for the monthly averages of precipitation and temperature and create your own .WGN file. Alternatively, you could use the Climate Assessment Tool in AGWA to modify an existing WGN file and replace the monthly mean max temperature, mean min temperature, and mean precipitation with the values from the PRISM grid. For more information on the statistical data requirements for the .WGN file, please refer to the SWAT documentation at http://swatmodel.tamu.edu/documentation (either the SWAT2005 Input/Output File Documentation or the SWAT2000 User's Manual).

Richardson, C.W. 1981. Stochastic simulation of daily precipitation, temperature, and solar radiation. Water Resources Res. 17(1):182-190.

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